

Tourism And Economic Development In Indonesia

Fafurida Fafurida, Shanty Oktavilia, Suchatiningsih Dian Wisika Prajanti, Yoris Adi Mareta

Abstract: Tourism sector is important as the leveraging sector of regional economic growth. It is because tourism activities bring multiplier effect to the economic sector movement in it. The Indonesian government encourages the tourism sector development because it is expected to be fast enough to accelerate the increase in economy and social welfare. This research analyzes a relationship between the tourism using the proxy with the number of international tourist visits and the economic development in Indonesia by using two models of econometric data panel (33 provinces in 2011-2017 period of time). The first model hypothesis covering gross domestic regional income (GDRB), human development index (HDI), and international trade (TRD) has the positive effect on tourism variable (WIS), while poverty (POV) has the negative effect. The second model analyzes the relationship between WIS, HDI, and TRD variables and GDRB with a hypothesis having the positive effect. Poverty variable (POV) has the negative effect on the economic development. The result of research on the first model indicates that there is a conformity of the hypothesis and the significant relationship ($\alpha = 1$ percent) on tourism. Similarly, the second model also indicates the significant result and is in accordance with the hypothesis. The findings in this study indicate that tourism sector is capable to give the positive effect on the economic development in Indonesia during the period of research.

IndexTerms: data panel, development, economic, tourism.

1 INTRODUCTION

Tourism is designated as a leading sector in increasing the economic growth and in encouraging the increase in foreign exchange reserves. The Acts No. 10 of 2009 defines tourism as various kinds of tourism activities and supported by various facilities and services provided by the society, entrepreneurs, government, and local government. The Acts states that tourism is the integral part of the national development, which is conducted systematically, planned, integratedly, sustainably, and responsibly by still giving protection to religious values, cultures living in society, preservation and environmental quality, and national interests. The government projects Tourism Industry in 2019 to be the greatest foreign exchange in Indonesia that is US\$ 24 billion, going beyond the Oil and Gas, Coal and Palm Oil sectors (Ministry of Tourism RI, 2017). Country Branding Wonderful Indonesia that previously was not included in the branding rank in the world, in 2015 has sped up more than 100 ranks to be the 47th rank, beating out Country Branding Truly Asia Malaysia (the 96th rank) and Country Branding Amazing Thailand (the 83rd rank). Country Branding Wonderful Indonesia reflects the Positioning and Differentiating of the Indonesian Tourism (World Economic Forum, 2017) [1]. The performance of Indonesian tourism sector is indicated by the increase in the number of foreign tourists that has increased since 2009. The greatest number proportions of foreign tourists are from Tiongkok (21.4%), India (16.7%), Australia (10.4%), and Malaysia (9.3%) (Ministry of Tourism RI, 2017) [2]. Tourism has been a potential contributor on the economy through the multiplier effect existing in this sector. Experiences in some countries indicate that the increase in economy is contributed by tourism sector (Kreishan (2010), Saha & Cambell (2016); Simundi, Kulis, Seric (2016)) [3]. Kim, Chen and Jang (2006) state that tourism sector becomes a stimulus for the increase in capital investment activities supporting the tourism sector especially in the infrastructure expansion and the tourism network to other economic sectors such as transportation, retailing, manufacture, and distribution of other goods and

service [4]. It is in line with a research conducted by Eugenio et al. (2004) stating that tourism demands four main services those are accommodation, transportation, food, and entertainment service in its tourism journey. Thus, the industries supporting tourism such as hotelier, food, and transportation also develop in line with the development of tourism sector. In the performance report of the Ministry of Tourism in 2016, it is stated that the government has succeeded in reaching the target of the number of employment of tourism sector amounted 12 million due to the ease of investment and the increase in the number of tourism business. The Ministry of Tourism has conducted efforts to increase the number of tourism business by many activities such as technical guidance for excellent services in tourism business, preparation of investment proposals and investment promotion and community empowerment. The tourism sector that develops in aggregate in an area will also be influenced by the economic condition existing in that period. This research analyzes the influence of relationship between tourism in Indonesia and some indicators of economic development and analyzes how the effect of tourism sector in increasing the Indonesia economy is.

2 LITERATURE REVIEW

The studies conducted to analyze the relationship between the economic growth and tourism and vice versa are conducted in some countries. There are two groups of study thinking those are studies conducted on single country and on groups of countries. Besides the relationship between the effect and the correlation among variables, some studies focus on the causal relationship between tourism expansion and economic growth, and some are combined with some existing development issues. Researchers conducted by Ekanayake & Long (2012), Brida & Pulina (2010), Kreishan (2010) and Lee and Chang (2008), find the empirical evidence that the economic growth is influenced by the tourism sector [5]. The different results of studies, as conducted by Katircioglu (2009), Narayan (2004), and Lanza et al. (2003), show that the rapid growth of the tourism sector is encouraged by an increase in economic growth in the aggregate. Although it is relatively few, the reciprocal hypothesis is still supported by some researchers conducted by, for example, Dritsakis N. (2012), Arslanturk, et al. (2011) and Kim, et al. (2006) [6]. Tourism is often seen as an

- Fafurida Fafurida, Universitas Negeri Semarang, Indonesia. E-mail: fafurida@mail.unnes.ac.id
- Shanty Oktavilia, Universitas Negeri Semarang, Indonesia
- Suchatiningsih Dian Wisika Prajanti, Universitas Negeri Semarang, Indonesia
- Yoris Adi Mareta, Universitas Negeri Semarang, Indonesia

important engine for the economic growth and the development of a country and helps improve the economic welfare of the local residents. This is indicated by the results of some researches that have developed rapidly in the last decade, especially those measuring the tourism contribution to the economic growth (Tiwari, 2011; Brida & Rizzo, 2009; Tang & Jan, 2009) [7]. The development of international tourism is recognized as having the positive effect on the increase in long-term economic growth through some transmissions. First, through the role of tourism as the source of foreign exchange, it is possible to increase the quality of payments for imported capital goods or basic inputs used in the production process. Second, tourism plays an important role in spurring investment in the new infrastructure and the competition between the local companies and the companies in other tourism countries. Third, tourism stimulates other economic industries with direct, indirect and induced effects. Fourth, tourism contributes to creating employment and increasing income. Fifth, tourism may lead to positive exploitation on the scale of production in the national companies (Schubert, Brida, & Rizzo, 2010) [8]. Besides, consumption and purchase of goods and services by the tourists may affect the increase in economic activities such as accommodation, transportation and tour operators, tourism-related retail businesses (restaurants and souvenir retailers), and the development of tourism attractions (including natural site, cultural / historical sites, and the development of artificial tourism attractions). Other economic benefits derived from the tourism activities include tax revenues, employment, and additional sources of income (Archer, 1995, Khan et al., 1990). The development of tourism sector also increases the contribution of this sector to the economic growth. Quantitative measurement of the role of tourism sector needs to be specifically conducted because tourism sector involves many sectors in the components making gross domestic product. So that the analysis of the interaction between tourism and GDP needs a comprehensive view, especially in accommodating the involvement of some economic sectors (Holzner, 2011; Ivanov & Webster, 2007) [9]. The rapid tourism development leads to some effects on the household income and the government revenues either directly or indirectly. An explanation of some results of studies suggests that tourism development contributes positively to the economic growth (Schubert, Brida, & Rizzo, 2010) [10].

3 METHOD

This research uses a data panel to overcome the limitation of time series data that are not available in the long series. The use of data panel model makes it possible to get efficient estimation results by the increase in the number of observations having implications for the increase in degree of freedom (Baltagi, 2005) [11]. The data panel in this research is a joint cross-section of 33 provinces in Indonesia in 2011-2017 period of time. North Kalimantan Province is not included in this research because it is the new one so that the data series available is those in 2015. The data panel model recognizes two approaches those are fixed effect model (FEM) and random effect model (REM). The determination of the best model analyzed from the two models (FEM or REM) uses the Hausman Test (Gujarati and Porter, 2009) [12]. This research uses two empirical models to answer the research objectives. The first model analyzes the influence of variables on gross domestic regional income (GDRB), human

development index (HDI), poverty (POV) and international trade (TRD) on the tourism variable (WIS). The second model analyzes the relationship among tourism (WIS), human development index (HDI), poverty (POV) and international trade (TRD) for the economy (GDRB). The empirical model of this research is formulated as follows:

$$LWIS_{it} = \beta_0 + \beta_1 LGDRB_{it} + \beta_2 LHDI_{it} + \beta_3 LPOV_{it} + \beta_4 LTRDE_{it} + u_{it} \quad (1)$$

$$\beta_0, \beta_1, \beta_2, \beta_4 > 0 \text{ and } \beta_3 < 0$$

$$LWIS_{it} = \alpha_0 + \alpha_1 LWIS_{it} + \alpha_2 LHDI_{it} + \alpha_3 LPOV_{it} + \alpha_4 LTRDE_{it} + v_{it} \quad (2)$$

$$\alpha_0, \alpha_1, \alpha_2, \alpha_4 > 0 \text{ and } \alpha_3 < 0$$

In both models, (L) shows the natural logarithm, (u) and (v) are the error terms, (i) shows the observations based on provinces and (t) shows the observations based on the time series. At the next step, an analysis is conducted by considering the results of statistic test and classical assumption test applied to the data panel regression model.

4 RESULT AND ANALYSIS

Regression in both data panel models in this research should pass the Hausman test first. The Hausman test results on both models show that the chi-square probability is > 0.0000, which means that the regression of the data panel with the Fixed Effect Model (FEM) method is more advisable to use than the Random Effect Model (REM). The results of analysis and discussion will then be explained by the FEM approach. The regression results in the first model, which are with the tourism dependent variable (WIS) and the independent variables those are LGDRP, LHDI, LPOV, and LTRD, indicate a conformity with the hypothesis, in which the first model with FEM that shows the variables of regional income (GDRP), human development index (HDI), and international trade (TRD) has the positive and significant effect on tourism in Indonesia at the error rate $\alpha = 1$ percent. The poverty variable (POV) has the negative and significant effect on tourism in Indonesia at the error rate $\alpha = 1$ percent. The coefficient of determination (R²) in the first model is 0.509. This means that 50.09 percent of the total variation of the tourism variable (WIS) can be explained by four independent variables in the empirical model. While the rest amounted 49.01 percent is explained by other variations outside the empirical model.

TABLE 1
ESTIMATION RESULT OF PANEL DATA MODEL:
DEPENDENT VARIABLE OF TOURISM (LWIS)

Variable	Coefficient	t-Statistic	Prob.*
LGDRP	0.550254	2.884604	0.0044
LHDI	9.689696	5.864316	0.0000
LPOV	-0.343430	-5.837461	0.0003
LTRD	0.183089	2.433029	0.0159
C	-41.46176	-6.845023	0.0000

Notes: *) significant at 1%

Based on the results of the first regression model, the LGDRP coefficient value is 0.5502, which means that a 1 percent increase in GDRP will increase the tourism sector (the number of international tourists to Indonesia) by 0.55 percent. This result is in line with the results of research in some developing countries stating that the growth of tourism sector is encouraged by the economic growth in aggregate

(Katircioglu, 2009; Narayan, 2004; and Lanza et al., 2003) [13]. The LHDI coefficient of 9.69696 means that a 1 percent increase in the human development index will increase the tourism sector by 9.68 percent. Tourism development index is an indicator of the human resource quality, which includes health and education indicators. The more increasing the health conditions, education and other human quality indicators will encourage an increase in the number of tourist visits in Indonesia (Martawardaya, 2017) [14]. The coefficient of LPOV of -0.3434 means that an increase in the number of poor people in Indonesia by 1 percent will reduce the number of tourist visits by 0.34 percent. The trade variable shows a coefficient of 0.1830, which means that a 1 percent increase in the value of international trade will increase tourism by 0.18 percent. This is in line with the results of research (Schubert, Brida, & Risso, 2010) stating that the growth of economies of scale and trade in a country indicates improvements in economic infrastructure and facilities in the country [15]. For Indonesia, which has diverse natural and cultural resources as the main capital of tourism, the increase in economies of scale and in trade activities among the countries will further encourage the development of tourism sector. The analysis of the second model is based on the regression results summarized in Table 2. The second model, which is a panel regression with dependent variables, is the gross regional domestic product (GDRP) and the independent variables are LWIS, LHDI, LPOV, and LTRD. The focus of analysis on this second model is to answer the purpose of whether the tourism sector influences the economic development in Indonesia. The results of analysis shows a conformity of the sign with the hypothesis and shows a significance on the degree of error $\alpha = 1$ percent. The coefficient value of determination (R²) in the first model is 0.8894. This means that 88.94 percent of the total variation in the gross regional domestic product (GDRP) variable can be explained by four independent variables in the empirical model. While the rest amounted 11.06 percent is explained by other variations outside the empirical model.

TABLE 2
ESTIMATION RESULT OF PANEL DATA MODEL:
DEPENDENT VARIABLE OF GROSS DOMESTIC
REGIONAL PRODUCT (LGDRP)

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
LHDI	4.833495	0.206647	23.39009	0.0000
LPOV	-0.516997	0.011467	-45.08652	0.0000
LTRD	0.300987	0.010309	29.19755	0.0000
LWIS	0.027226	0.008119	3.353266	0.0010
C	-14.11933	0.852376	-16.56466	0.0000

Notes: *) significant at 1%

The coefficient on each independent variable shows the magnitude of the effect of these variables on the economic development in Indonesia. The LHDI coefficient is 4.833, which means that a 1 percent increase in the human development index will increase the Gross Domestic Regional Product (GDRP) by 4.983 percent. This shows that the role of human capital is quite large in the economic development in Indonesia. The quality of human resources reflected in the human development index is proved to be able to statistically encourage the economic growth reflected in the growth of the

Gross Domestic Regional Product (GDRP). The tourism variable coefficient (LWIS) is 0.027, which means an increase of 1 percent in the number of international tourist visits may increase the growth of GDRP by 0.027 percent. This result states that tourism is able to encourage the economic growth, and it is in line with researches in some countries as conducted by Ekanayake & Long (2012), Brida & Pulina (2010), Kreishan (2010) and Lee and Chang (2008) [16]. The poverty variable coefficient shows the negative effect, with a coefficient of -0.5169. This shows that a 1 percent increase in the poverty rate in Indonesia will reduce the Gross Domestic Regional Product (GDRP) by 0.51 percent. While trade is able to encourage the growth of the Gross Domestic Regional Product (GDRP) by 0.3 percent if there is an increase in the international trade activities by 1 percent. This is indicated by the results of the coefficients on the LTRD variable of 0.3009. Overall the results of analysis on two models on the economic and tourism development in Indonesia show a conformity with the theories and some of the results of studies in the world, especially in the developing countries.

5 CONCLUSION

This study explores the long-term relationship of tourism and economic development in 33 provinces in Indonesia in seven-year period of time. The entire empirical model is able to answer the objectives of the research with significant results and in accordance with hypothesis. This study shows that the development of tourism in Indonesia cannot be separated from the improvement of the performance of economic development indicators. Directly or indirectly the development indicators used in the first empirical model affect the tourism in Indonesia. So that the problems of tourism are not only related to the technical efforts to increase the number of visits and the improvement of tourist facilities and attractions, but also guarding the performance of other economic development indicators. The role of tourism sector in the economy as a whole is explained in the results of research with the second model, which cannot be as strong as the effect of the variable of human development quality that is reflected in the human development index variable. This shows that tourism sector as part of the economic development as a whole is also strongly influenced by the human resource quality. The Indonesian great strength of tourism, supported by the ownership of diverse natural and cultural resources, will increasingly have the effect on the economy in the aggregate if supported by the better quality of human resources. Therefore, the efforts to improve the human quality in managing the tourism sector are the important key in the development of tourism in Indonesia.

REFERENCES

- [1] Arslanturk, Y., Balcilar, M. and Ozdemir, Z. A. Time-varying linkages between tourism receipts and economic growth in a small open economy. *Economic Modelling*, 28(2), 664-671 (2011)
- [2] Baltagi, H. Badi. *Econometric Analysis of Panel Data*. Chichester: John Wiley & Son (2005)
- [3] Berly Martawardaya. Tourism and Economic Development in ASEAN 1998–2013, *Economics and Finance in Indonesia Vol. 63 No. 2, December 2017* (2017)
- [4] Brida, J. G., & Pulina, M. A literature review on the tourism led growth hypothesis. *Working Papers, CRENoS*, 17 (2010)
- [5] Dritsakis N. Tourism Development and Economic Growth in Seven Mediterranean Countries: A Panel Data Approach. *Tourism Economics*. 18 (4): 801-816 (2012)

- [6] Ekanayake E M, Long A E. Tourism Development and Economic Growth in Developing Countries. *The International Journal of Business and Finance Research*. 6 (1) (2012)
- [7] Eugenio-Martin, J. L., Morales, N. M., & Scarpa, R. Tourism and economic growth in Latin American Countries: A panel data approach. *FEEM Working Paper No. 26* (2004)
- [8] Gujarati N Damodar and Porter D C. *Basic Econometrics* 5th ed., New York: McGraw- (2009)
- [9] Hill, Holzner, M. Tourism and economic development: The beach disease? *Tourism Management*, 32 (4), pp. 922-933 (2011)
- [10] Ivanov, S. and Webster C. Measuring the impact of tourism on economic growth, *Tourism Economics*, 13 (3), pp. 379-388 (2007)
- [11] Katircioglu, S. T. Revisiting the tourism-led-growth hypothesis for Turkey using the bounds test and Johansen approach for cointegration. *Tourism Management*, 30, 17–20 (2009)
- [12] Kementerian Pariwisata RI. Capaian Sektor Pariwisata 3 Tahun Jokowi-JK (*Performance of Tourism Sector, 3 Years, Jokowi-JK*), <http://presidenri.go.id/wp-content/uploads/2017/10/KEMENPAR-Laporan-3-Th-Jkw-JK.pdf> (2017)
- [13] Kementerian Pariwisata. Laporan Kinerja Kementerian Pariwisata Tahun 2016, Biro Perencanaan Keuangan Sekretariat Kementerian Pariwisata (*Report of Performance of Ministry of Tourism in 2016, Financial Planning Bureau of the Secreatriat of Ministry of Tourism*) (2017)
- [14] Kim, H. J., Chen, M. H., and Jang, S. C. Tourism expansion and economic development: The case of Taiwan. *Tourism Management*, 27(5), 925–933 (2006)
- [15] Kreishan, F. M. M. Tourism and Economic Growth: The Case of Jordan, *European Journal of Social Sciences*, 15 (2), 229-234 (2010)
- [16] Lanza, A., Templec, P., and Urgad, G. The implications of tourism specialization in the long-run: An econometric analysis for 13 OECD economies. *Tourism Management*, 24, 315–321 (2003)
- [17] Lee, C. C. and Chang, C. P. Tourism development and economic growth: A closer look at panels, *Tourism Management*, 29, 180–192 (2008)
- [18] Narayan, P. K. Economic impact of tourism on Fiji's economy: Empirical evidence from the computable general equilibrium model. *Tourism Economics*, 10, 419–433 (2004)
- [19] Saha S, Su JJ, Campbell N. Does Political and Economic Freedom Matter for Inbound Tourism? A cross-National Panel Data Estimation. *Journal of Travel Research*. 56 (2):221-234 (2016)
- [20] Schubert F.S., J.G. Brida, W.A. Risso. The impacts of international tourism demand on economic growth of small economies dependent of tourism. *Tourism Management*, 32 (2), pp. 377-385 (2010)
- [21] Simundic B, Kulis Z, Seric N. Tourism and Economic Growth: An Evidence for Latin American and Caribbean Countries. *Tourism & Hospitality Industry. Congress Proceedings, PP:457-46* (2016)
- [22] Tang, C. H., & Jang, S. C. The tourism economy causality in the United States: A sub industry level examination. *Tourism Management*, 30 (4), 553-558 (2009)
- [23] Tiwari, A. K. 2011. Tourism, exports and FDI as a means of growth: Evidence from four Asian countries. *The Romanian Economic Journal*, 14 (40), 131-151 (2011)